

REMARKS

Claims 1-40, all the claims pending in the application, stand rejected on prior art grounds and upon informalities. Claim 1 stands objected to. Claims 1, 14, 27, and 40 are amended herein. Applicants respectfully traverse these objections/rejections based on the following discussion.

I. The Objections to the Claims

Claim 1 is objected to because there is insufficient antecedent basis for “said first object storage device.” Accordingly, the Applicant has amended claim 1 to provide proper antecedent basis for the claimed language. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw this rejection.

II. The 35 U.S.C. §112, Second Paragraph, Rejection

Claims 1-40 stand rejected under 35 U.S.C. §112, second paragraph. Claim 1 has been amended to recite, in part, “converting said variably sized object into any of a grouped object Redundant Array of Independent Disks (RAID) layout and an individual RAID layout as said variably sized object changes in size, which occurs only after a size of said variably sized object has previously remained dormant for a predetermined period of time.” Claim 14 has been amended to recite, in part, “converting said variably sized object into any of a grouped object Redundant Array of Independent Disks (RAID) layout and an individual RAID layout upon growth of said variably sized object, which occurs only after a size of said variably sized object has previously remained dormant for a predetermined period of time.” Claim 27 has been

amended to recite, in part, “a data converter operable for converting said variably sized object into any of a grouped object Redundant Array of Independent Disks (RAID) layout and an individual RAID layout when said object changes in size, which occurs only after a size of said variably sized object has remained dormant for a predetermined period of time.” Claim 40 has been amended to recite, in part, “means for converting said variably sized object into any of a grouped object Redundant Array of Independent Disks (RAID) layout and an individual RAID layout upon growth of said variably sized object, which occurs only after a size of said variably sized object has remained dormant for a predetermined period of time.” Accordingly, the claims are directed to clear and unambiguous language. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw this rejection.

III. The Prior Art Rejections

Claims 1-2, 6-8, 10-11, 14-15, 19-21, 23-24, 27-28, 32-34, 36-37, and 40 stand rejected under 35 U.S.C. §102(b) as being anticipated by DeKoning (U.S. Patent No. 6,275,898). Claims 3-5, 9, 12-13, 16-18, 22, 25-26, 29-31, 35, and 38-39 stand rejected under 35 U.S.C. §103(a) as being unpatentable over DeKoning in view of Jacobson et al. (U.S. Patent No. 5,392,244), hereinafter referred to as “Jacobson”. Applicants respectfully traverse these rejections based on the following discussion.

DeKoning teaches methods and structures for defining partitions within a RAID storage system LUN such that each partition is managed in accordance with RAID management techniques independent of the other partitions. The total data storage of the LUN is subdivided and mapped into a plurality of partitions also referred to as partitions. Initially, each partition is

configured and mapped to run as a RAID level 1 mirrored storage area. As performance and storage capacity needs as measured for each partition dictate, a partition of a LUN may be reconfigured to use a different RAID level (i.e., level 3 or 5) to reduce overhead storage needs at the cost of decreased write performance. A partition may later be returned to RAID level 1 as performance needs so indicate. Each partition is therefore managed in accordance with its own RAID level of management. The partitions of a LUN may expand to incorporate unused space in an adjacent partition or unused space in the LUN may be compacted and consolidated in one area of the LUN such that the partitions are moved to fill holes in the LUN storage capacity.

Jacobson teaches a disk array has a plurality of disks, a disk array controller for coordinating data transfer to and from the disks, and a RAID management system for mapping two different RAID areas onto the disks. The RAID management system stores data in one of the RAID areas according to mirror redundancy, and stores data in the other RAID area according to parity redundancy. The RAID management system then shifts or migrates data between the mirror and parity RAID areas on the disks in accordance with a predefined performance protocol, such as data access recency or access frequency.

The claimed invention, as provided in amended independent claims 1, 14, 27, and 40 contain features, which are patentably distinguishable from the prior art references of record. Specifically, claim 1 has been amended to recite, in part, “converting said variably sized object into any of a grouped object Redundant Array of Independent Disks (RAID) layout and an individual RAID layout as said variably sized object changes in size, which occurs only after a size of said variably sized object has previously remained dormant for a predetermined period of time.” Claim 14 has been amended to recite, in part, “converting said variably sized object into

any of a grouped object Redundant Array of Independent Disks (RAID) layout and an individual RAID layout upon growth of said variably sized object, which occurs only after a size of said variably sized object has previously remained dormant for a predetermined period of time.”

Claim 27 has been amended to recite, in part, “a data converter operable for converting said variably sized object into any of a grouped object Redundant Array of Independent Disks (RAID) layout and an individual RAID layout when said object changes in size, which occurs only after a size of said variably sized object has remained dormant for a predetermined period of time.” Claim 40 has been amended to recite, in part, “means for converting said variably sized object into any of a grouped object Redundant Array of Independent Disks (RAID) layout and an individual RAID layout upon growth of said variably sized object, which occurs only after a size of said variably sized object has remained dormant for a predetermined period of time.”

Page 3 of the Office Action indicates that the Examiner is interpreting that the Applicant only meant that the converting of the object took place when the object has remained dormant for a period of time. However, as the claimed amendments indicate, such an interpretation is incorrect for purposes of examination. Accordingly, DeKoning is incapable of teaching the Applicant’s claimed invention because it does not teach converting the variably sized object into any of a grouped object Redundant Array of Independent Disks (RAID) layout and an individual RAID layout upon growth of said variably sized object. Rather, according to the interpretation provided in page 4 of the Office Action, “DeKoning converts the object as the object has remained dormant in size,” which is contrary to the Applicant’s claimed invention. Furthermore, because DeKoning does not teach this aspect of the Applicant’s claimed invention, it follows that DeKoning does not teach that the converting process occurs upon growth of the variably sized

object, which occurs only after a size of said variably sized object has previously remained dormant for a predetermined period of time. Therefore, the Applicant's claimed invention is patentably distinct from DeKoning. Moreover, even if DeKoning were combined with Jacobson, it would still fail to teach the features defined by the Applicant's claimed invention.

In view of the foregoing, the Applicant respectfully submits that the collective cited prior art do not teach or suggest the features defined by amended independent claims 1, 14, 27, and 40 and as such, claims 1, 14, 27, and 40 are patentable over DeKoning alone or in combination with Jacobson. Further, dependent claims 2-13, 15-26, and 28-39 are similarly patentable over DeKoning alone or in combination with Jacobson, not only by virtue of their dependency from patentable independent claims, respectively, but also by virtue of the additional features of the invention they define. Thus, the Applicant respectfully requests that these rejections be reconsidered and withdrawn. Moreover, the Applicant notes that all claims are properly supported in the specification and accompanying drawings. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw the rejections.

IV. Formal Matters and Conclusion

With respect to the objections/rejections to the claims, the claims have been amended, above, to overcome these objections/rejections. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw the rejections to the claims.

In view of the foregoing, Applicants submit that claims 1-40, all the claims presently pending in the application, are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to

issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary. Please charge any deficiencies and credit any overpayments to Attorney's Deposit Account Number 09-0441.

Respectfully submitted,

Dated: April 9, 2007

/Mohammad S. Rahman/

Mohammad S. Rahman

Registration No. 43,029

Gibb & Rahman, LLC
2568-A Riva Road, Suite 304
Annapolis, MD 21401
Voice: (301) 261-8625
Fax: (301) 261-8825
Customer Number: 29154